

**CLAIMS:**

1. A method of comparing a first data set with a second data set, wherein:
  - the first data set is obtained by taking a first sample, the first sample being formed of one or more components, the components differing from one another in terms of one or more characteristics, subjecting the first sample to a technique which provides a detectable indication of the different characteristics possessed by different components, taking a reading of the detectable indication, the reading forming the first data set;
  - the second data set is obtained by taking a second sample, the second sample being formed of one or more components, the components differing from one another in terms of one or more characteristics, subjecting the second sample to a technique which provides a detectable indication of the different characteristics possessed by different components, taking a reading of the detectable indication, the reading forming the second data set; and
  - comparing the reading of the detectable indication for the first sample with the reading of the detectable indication for the second sample.
2. A method of comparing a first DNA data set with a second DNA data set, wherein:
  - the first DNA data set is obtained by taking a first DNA sample, the first DNA sample including one or more DNA components, the DNA components differing from one another in terms of one or more characteristics, subjecting the first DNA sample to a technique including amplification and component separation to provide a detectable indication of the different characteristics possessed by different DNA components, taking a reading of the detectable indication, the reading forming the first DNA data set, making a record of the first DNA data set in the form of the reading;
  - the second DNA data set is obtained by taking a second DNA sample, the second DNA sample including one or more DNA components, the DNA components differing from one another in terms of one or more characteristics, subjecting the second DNA sample to a technique including amplification and component separation to provide a detectable indication of the different characteristics possessed

by different DNA components, taking a reading of the detectable indication, the reading forming the second DNA data set; and

comparing the reading of the detectable indication for the first DNA sample with the reading of the detectable indication for the second DNA sample to establish whether the first and second DNA samples match one another according to one or more criteria.

3. A method according to claim 2 in which the reading is not processed in any way.
4. A method according to claim 2 in which the reading is not expressed and/or presented and/or considered and/or stored and/or recorded in terms of allele position and/or allele size and/or allele length and/or allele identity and/or quantity of an allele, ideally including any expression thereof.
5. A method according to claim 2 in which the reading is not expressed and/or presented and/or considered and/or stored and/or recorded in terms of SNP position and/or SNP size and/or SNP identity and/or quantity of an SNP and/or intensity of SNP, ideally including any expression thereof.
6. A method according to claim 2 in which the reading does not exclude any data relating to the detectable indication.
7. A method according to claim 2 in which the reading does not represent an interpretation of the detectable indication.
8. A method according to claim 2 in which at least one of the readings is stored and/or recorded and/or entered into a database prior to comparison.
9. A method according to claim 2 in which the comparison process involves consideration of:

Pr(Data/HpData & Other information)

$\Pr(\text{Data}/\text{HdData} \ \& \ \text{Other information})$

where this is an expression of the probability of the raw data given one raw data situation, for instance a prosecution scenario, considered against the probability of the raw data given another raw data situation, for instance a defence scenario.

10. A method of comparing a first data set with a second data set, wherein:
  - the first data set is obtained by taking a first sample, the first sample being formed of one or more components, the components differing from one another in terms of one or more characteristics, subjecting the first sample to a technique which provides a detectable indication of the different characteristics possessed by different components, taking a reading of the detectable indication, the reading forming the first data set;
  - the second data set is obtained by taking a second sample, the second being formed of one or more components, the components differing from one another in terms of one or more characteristics, that subjecting the second sample to a technique which provides a detectable indication of the different characteristics possessed by different components, taking a reading of the detectable indication, the reading forming the second data set; and
  - comparing the reading of the detectable indication for the first sample with the reading of the detectable indication for the second sample, the comparison being made empirically and / or without interpreting detectable indications and / or without interpreting the reading of the detectable indications and / or without interpreting the data sets.